

WHAT IS CLAIMED IS:

1. A method for preparing the junction-receiving surface of a semiconductive substrate of one conductivity type comprising:
mapping the resistivity of a major surface of a semiconductive substrate by selectively measuring the resistivity of discrete locations on said major surface; and
counter-doping said locations to increase their resistivity to a substantially uniform resistivity based on said mapping.
2. The method defined in claim 1, wherein said counter-doping step is performed by implanting ions.
3. The method defined in claim 2, further comprising diffusing said ions to a desired depth.
4. The method defined in claim 1, further comprising a step of comparing the measured resistivity of each of said discrete locations to a reference value and determining desired counter-doping for each discrete location based on said comparison.
5. The method defined in claim 1, wherein said method is executed by a software.
6. The method defined in claim 1, wherein said selective measurements are made by a non-contact probe.

7. The method defined in claim 1, wherein said semiconductive substrate is comprised of silicon.

8. The method defined in claim 1, wherein said semiconductive substrate is doped with N type dopants and counter-doped with P type dopants.